Brian Schweitzer, Governor

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March 21, 2012

Ms. Jana McDonald Interstate Concrete and Asphalt Company 845 West Kathleen Avenue Coeur d'Alene, Idaho 83815

Dear Ms. McDonald:

Montana Air Quality Permit #3207-01 is deemed final as of March 21, 2012, by the Department of Environmental Quality (Department). This permit is for a portable crushing/screening plant. All conditions of the Department's Decision remain the same. Enclosed is a copy of your permit with the final date indicated.

For the Department,

Vickie (1) alsh

Vickie Walsh

Air Permitting Program Supervisor

Air Resources Management Bureau

(406) 444-9741

Deanne Fischer, P.E.

Environmental Engineer

Air Resources Management Bureau

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VW:DF Enclosure

Montana Department of Environmental Quality Permitting and Compliance Division

Montana Air Quality Permit #3207-01

Interstate Concrete and Asphalt Company 845 West Kathleen Avenue Coeur d'Alene, Idaho 83815

March 21, 2012



MONTANA AIR QUALITY PERMIT

Issued To: Interstate Concrete and Asphalt Company 845 West Kathleen Avenue

Coeur d'Alene, Idaho 83815

MAQP: #3207-01

Administrative Amendment (AA) Request

Received: February 3, 2012

Department Decision on AA: March 5, 2012

MAQP Final: 03/21/2012

AFS: #777-3207

A Montana Air Quality Permit (MAQP), with conditions, is hereby granted to Interstate Concrete and Asphalt Company (Interstate), pursuant to Sections 75-2-204 and 211 of the Montana Code Annotated (MCA), as amended, and Administrative Rules of Montana (ARM) 17.8.740, *et seq.*, as amended, for the following:

SECTION I. Permitted Facilities

A. Plant Location

Interstate owns and operates a portable crushing/screening plant located at various locations throughout Montana. MAQP #3207-01 applies while operating at any location within Montana, except those areas having a Department of Environmental Quality (Department) approved permitting program, areas considered tribal lands, or areas in or within 10 kilometers (km) of certain particulate matter with an aerodynamic diameter of 10 microns or less (PM₁₀) nonattainment areas. A Missoula County air quality permit will be required for locations within Missoula County.

MAQP #3207-01 and Addendum 2 apply to the Interstate facility while operating at any location in or within 10 km of certain PM_{10} nonattainment areas during the summer months (April 1 – September 30).

B. Current Permit Action

On February 3, 2012, the Department received a request to administratively amend MAQP #3207-00 to change existing federally enforceable limits. Interstate's request was made as part of a project undertaken by the Department to address those sources with existing federally enforceable permit limits that were established to keep potential emissions below the 100 ton per year (TPY) major source Title V Operating Permit thresholds. The Department offered these "synthetic minor" sources the opportunity to take new permit limits to further reduce emissions from just below 100 TPY to below 80 TPY. The permit limit change will consequently alter the oversight category for this facility to a level that is only subject to the State Compliance Monitoring Strategy. This permitting action amends MAQP #3207-00 to further limit hours of operation to a level that results in potential emissions below 80 TPY. In addition, the permit updates the rule references, permit format, and the emissions inventory.

SECTION II. Conditions and Limitations

A. Emission Limitations

1. All visible emissions from any Standards of Performance for New Stationary Source (NSPS) – affected crusher shall not exhibit an opacity in excess of the following averaged over 6 consecutive minutes (ARM 17.8.340, ARM 17.8.752, and 40 CFR 60, Subpart OOO):

- For crushers that commence construction, modification, or reconstruction on or after April 22, 2008: 12% opacity
- For crushers that commence construction, modification, or reconstruction after August 31, 1983, but before April 22, 2008: 15% opacity.
- 2. All visible emissions from any other NSPS-affected equipment (such as screens and conveyors) shall not exhibit an opacity in excess of the following averaged over 6 consecutive minutes (ARM 17.8.340, ARM 17.8.752, and 40 CFR 60, Subpart OOO):
 - For equipment that commence construction, modification, or reconstruction on or after April 22, 2008: 7% opacity
 - For equipment that commence construction, modification, or reconstruction after August 31, 1983 but before April 22, 2008: 10% opacity.
- 3. All visible emissions from any non-NSPS affected equipment shall not exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.304 and ARM 17.8.752).
- 4. Water and spray bars shall be available on-site at all times and operated as necessary to maintain compliance with the opacity limitations in Sections II.A.1, II.A.2, and II.A.3 (ARM 17.8.749 and ARM 17.8.752).
- 5. Interstate shall not cause or authorize the use of any street, road or parking lot without taking reasonable precautions to control emissions of airborne particulate matter (ARM 17.8.308 and ARM 17.8.752).
- 6. Interstate shall treat all unpaved portions of the haul roads, access roads, parking lots, or the general plant area with water and/or chemical dust suppressant, as necessary, to maintain compliance with the reasonable precautions limitation in Section II.A.5 (ARM 17.8.749 and ARM 17.8.752).
- 7. Interstate shall not operate or have on site more than four crushers with a total combined maximum design capacity of 1,500 tons/hour (TPH) at any given time (ARM 17.8.749).
- 8. Interstate shall not operate or have on site more than three screens with a total combined maximum design capacity of 1000 TPH at any given time (ARM 17.8.749).
- 9. Interstate shall not operate or have on site more than one diesel engine/generator. The maximum capacity of the engine that drives the generator shall not exceed 2,012 brake horsepower (bhp) at any given time (ARM 17.8.749).
- 10. Operation of the 2,012 bhp diesel engine driving the generator shall not exceed 2,500 hours during any rolling 12-month time period (ARM 17.8.749 and ARM 17.8.1204).
- 11. If the permitted equipment is used in conjunction with any other equipment owned or operated by Interstate, at the same site, production shall be limited to correspond with an emission level that does not exceed 250 tons of any pollutant during any rolling 12-month period. Any calculations used to establish production levels shall be approved by the Department (ARM 17.8.749 and ARM 17.8.752).

- 12. Interstate shall comply with all applicable standards and limitations, monitoring, reporting, recordkeeping, testing, and notification requirements contained in 40 CFR 60, Subpart OOO, *Standards of Performance for Nonmetallic Mineral Processing Plants* (ARM 17.8.340 and 40 CFR 60, Subpart OOO).
- 13. Interstate shall comply with all applicable standards and limitations, and the reporting, recordkeeping, and notification requirements contained in 40 CFR 60, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines and 40 CFR 63, Subpart ZZZZ, National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines, for any applicable diesel engine (ARM 17.8.340; 40 CFR 60, Subpart IIII; ARM 17.8.342 and 40 CFR 63, Subpart ZZZZ).

B. Testing Requirements

- 1. Within 60 days after achieving maximum production, but no later than 180 days after initial start-up, an Environmental Protection Agency (EPA) Method 9 opacity test and/or other methods and procedures as specified in 40 CFR 60.675 must be performed on any NSPS affected equipment to demonstrate compliance with the emission limitations contained in Section II.A.1 and II.A.2 (ARM 17.8.340 and 40 CFR 60, Subpart A and Subpart OOO). Additional testing may be required by 40 CFR 60, Subpart OOO (ARM 17.8.340 and 40 CFR 60, Subpart OOO).
- 2. All compliance source tests shall conform to the requirements of the Montana Source Test Protocol and Procedures manual (ARM 17.8.106).
- 3. The Department may require further testing (ARM 17.8.105).

C. Operational Reporting Requirements

- 1. If this crushing/screening plant is moved to another location, an Intent to Transfer form must be sent to the Department and a Public Notice Form for Change of Location must be published in a newspaper of general circulation in the area to which the transfer is to be made, at least 15 days prior to the move. The proof of publication (affidavit) of the Public Notice Form for Change of Location must be submitted to the Department prior to the move. These forms are available from the Department (ARM 17.8.749 and ARM 17.8.765).
- 2. Interstate shall supply the Department with annual production information for all emission points, as required by the Department in the annual emission inventory request. The request will include, but not be limited to, all sources of emissions identified in the emission inventory contained in the permit analysis.
 - Production information shall be gathered on a calendar-year basis and submitted to the Department by the date required in the emission inventory request. Information shall be in the units required by the Department. This information may be used for calculating operating fees, and/or to verify compliance with permit limitations (ARM 17.8.505).
- 3. Interstate shall notify the Department of any construction or improvement project conducted, pursuant to ARM 17.8.745, that would include *the addition of a new emissions unit*, change in control equipment, stack height, stack diameter, stack flow, stack gas temperature, source location, or fuel specifications, or would result in an increase in source capacity above its permitted operation. The notice must be submitted to the Department, in writing, 10 days prior to startup or use of the proposed de minimis change, or as soon as

reasonably practicable in the event of an unanticipated circumstance causing the de minimis change, and must include the information requested in ARM 17.8.745(l)(d) (ARM 17.8.745).

- 4. Interstate shall maintain on-site records showing daily hours of operation and daily production rates for the last 12 months. The records compiled in accordance with this permit shall be maintained by Interstate as a permanent business record for at least 5 years following the date of the measurement, must be available at the plant site for inspection by the Department, and must be submitted to the Department upon request (ARM 17.8.749).
- 5. Interstate shall document, by month, the hours of operation of the diesel engine/generator. By the 25th day of each month, Interstate shall total the hours of operation of the diesel engine/generator during the previous month. The monthly information will be used to demonstrate compliance with the rolling 12-month limitation in Section II.A.10. The information for each of the previous months shall be submitted along with the annual emission inventory (ARM 17.8.749)).
- 6. Interstate shall annually certify that its emissions are less than those that would require the source to obtain an air quality operating permit as required by ARM 17.8.1204(3)(b). The annual certification shall comply with the certification requirements of ARM 17.8.1207. The annual certification shall be submitted along with the annual emissions inventory information (ARM 17.8.749 and ARM 17.8.1204).

SECTION III. Addendum

Interstate shall comply with all of the conditions contained in Addendum 2 to MAQP #3207-01, as appropriate (ARM 17.8.749).

SECTION IV. General Conditions

- A. Inspection Interstate shall allow the Department's representatives access to the source at all reasonable times for the purpose of making inspections or surveys, collecting samples, obtaining data, auditing any monitoring equipment (continuous emissions monitoring system(CEMS) or continuous emissions rate monitoring system CERMS) or observing any monitoring or testing, and otherwise conducting all necessary functions related to this permit.
- B. Waiver The permit and all the terms, conditions, and matters stated herein shall be deemed accepted if Interstate fails to appeal as indicated below.
- C. Compliance with Statutes and Regulations Nothing in this permit shall be construed as relieving Interstate of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided for ARM 17.8.740, *et seq.* (ARM 17.8.756)
- D. Enforcement Violations of limitations, conditions and requirements contained herein may constitute grounds for permit revocation, penalties or other enforcement as specified in Section 75-2-401, *et seq.*, MCA.
- E. Appeals Any person or persons jointly or severally adversely affected by the Department's decision may request, within 15 days after the Department renders its decision, upon affidavit setting forth the grounds therefore, a hearing before the Board of Environmental Review (Board). A hearing shall be held under the provisions of the Montana Administrative Procedures Act. The filing of a request for a hearing does not stay the Department's decision, unless the Board issues a stay upon receipt of a petition and a finding that a stay is appropriate

under Section 75-2-211(11)(b), MCA. The issuance of a stay on a permit by the Board postpones the effective date of the Department's decision until conclusion of the hearing and issuance of a final decision by the Board. If a stay is not issued by the Board, the Department's decision on the application is final 16 days after the Department's decision is made.

- F. Permit Inspection As required by ARM 17.8.755, Inspection of Permit, a copy of the air quality permit shall be made available for inspection by Department personnel at the location of the permitted source.
- G. Permit Fee Pursuant to Section 75-2-220, MCA, failure to pay the annual operation fee by Interstate may be grounds for revocation of this permit, as required by that section and rules adopted thereunder by the Board.
- H. Duration of Permit Construction or installation must begin or contractual obligations entered into that would constitute substantial loss within 3 years of permit issuance and proceed with due diligence until the project is complete or the permit shall expire (ARM 17.8.762).
- I. The Department may modify the conditions of this permit based on local conditions of any future site. These factors may include, but are not limited to, local terrain, meteorological conditions, proximity to residences, etc.
- J. Interstate shall comply with the conditions contained in this permit while operating at any location in Montana, except within those areas that have a Department approved permitting program or areas considered tribal lands.

Montana Air Quality Permit (MAQP) Analysis Interstate Concrete and Asphalt Company MAQP #3207-01

I. Introduction/Process Description

Interstate Concrete and Asphalt Company (Interstate) owns and operates a portable crushing/screening facility.

A. Permitted Equipment

Equipment used at the facility includes, but is not limited to the following:

- 1. 4 crushers (up to 1,500 tons/hour (TPH) combined maximum capacity);
- 2. 3 screens (up to 1,000 TPH combined maximum capacity);
- 3. 3 loadout bunkers:
- 4. 1 diesel engine/generator (up to 2,012 brake horsepower (bhp) diesel engine); and
- 5. Associated equipment (conveyors and transfer points).

B. Source Description

For a typical operational set-up, quarried stone is dumped into the facility's primary crusher. The crushed material is conveyed to the primary screen. From the primary screen, the material is conveyed either to a secondary crusher or to the waste bunker. The secondary crusher crushes the material a second time and the material is then conveyed to the secondary screens. The secondary screens separate product-sized material and oversized material. The product-sized material is conveyed to loadout bunkers and the oversized material is conveyed to the tertiary crusher to be crushed a third time to achieve the appropriately sized material.

C. Permit History

On October 3, 2002, **MAQP** #3207-00 and **Addendum 1** were issued to Interstate for the operation of a portable crushing/screening facility including 4 crushers (up to 1,500 TPH combined maximum capacity), 3 screens (up to 1,000 TPH combined maximum capacity), 3 loadout bunkers, a diesel engine/generator (up to 2,012 bhp maximum capacity), and associated equipment. The permit allowed operation at various locations throughout the state of Montana. Addendum 1 allowed Interstate to operate in or within 10 kilometers (km) of the Kalispell, Libby, Whitefish, Columbia Falls, Butte, and Thompson Falls particulate matter with an aerodynamic diameter of 10 microns or less (PM $_{10}$) nonattainment areas (NAA) during the summer months (April 1 through September 30).

D. Current Permit Action

On February 3, 2012, the Montana Department of Environmental Quality (Department) received a request to administratively amend MAQP #3207-00 to change existing federally enforceable limits. Interstate's request was made as part of a project undertaken by the Department to address those sources with existing federally enforceable permit limits that were established to keep potential emissions below the 100 ton per year (TPY) major source Title V Operating Permit thresholds. The Department offered these "synthetic minor" sources the opportunity to take new permit limits to further reduce emissions from just below 100 TPY to below 80 TPY. The permit limit change will consequently alter the oversight category for this facility to a level that is only subject to the State Compliance Monitoring Strategy.

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This permitting action amends MAQP #3207-00 to further limit hours of operation of the engine/generator to maintain potential emissions of oxides of nitrogen (NO_x) below 80 TPY. In addition, the emission inventory calculations were updated to include current emission factors and to more accurately reflect the process rate of the equipment associated with this facility. The total plant crushing and screening rate limits were omitted from the permit because they were found to be unnecessary to keep PM_{10} emissions below 80 TPY.

The emission inventory calculations in Addendum 2 were also updated to include current emission factors and to more accurately reflect the process rate of the equipment associated with this facility. Total daily plant production limits were omitted because they are unnecessary to keep PM_{10} emission below the NAA PM_{10} emission threshold of 547 lbs/day.

The current permit action updates the rule references, permit format, and the emissions inventory. **MAQP** #3207-01 replaces MAQP #3207-00 and **Addendum 2** replaces Addendum 1.

E. Additional Information

Additional information, such as applicable rules and regulations, Best Available Control Technology (BACT)/Reasonably Available Control Technology (RACT) determinations, air quality impacts, and environmental assessments, is included in the analysis associated with each change to the permit.

II. Applicable Rules and Regulations

The following are partial explanations of some applicable rules and regulations that apply to the facility. The complete rules are stated in the Administrative Rules of Montana (ARM) and are available, upon request, from the Department. Upon request, the Department will provide references for locations of complete copies of all applicable rules and regulations where appropriate.

- A. ARM 17.8, Subchapter 1 General Provisions, including, but not limited to:
 - 1. <u>ARM 17.8.101 Definitions</u>. This rule includes a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.
 - 2. <u>ARM 17.8.105 Testing Requirements</u>. Any person or persons responsible for the emission of any air contaminant into the outdoor atmosphere shall, upon written request of the Department, provide the facilities and necessary equipment, and shall conduct tests, emission or ambient, for such periods of time as may be necessary using methods approved by the Department.
 - 3. <u>ARM 17.8.106 Source Testing Protocol</u>. The requirements of this rule apply to any emission source testing conducted by the Department, any source, or other entity as required by any rule in this chapter, or any permit or order issued pursuant to this chapter, or the provisions of the Clean Air Act of Montana, 75-2-101, *et seq.*, Montana Code Annotated (MCA).

Interstate shall comply with the requirements contained in the Montana Source Test Protocol and Procedures Manual, including, but not limited to, using the proper test methods and supplying the required reports. A copy of the Montana Source Test Protocol and Procedures Manual is available from the Department upon request.

- 4. <u>ARM 17.8.110 Malfunctions</u>. (2) The Department must be notified promptly by telephone whenever a malfunction occurs that can be expected to create emissions in excess of any applicable emission limitation or to continue for a period greater than 4 hours.
- 5. <u>ARM 17.8.111 Circumvention</u>. (1) No person shall cause or permit the installation or use of any device or any means that, without resulting in reduction of the total amount of air contaminant emitted, conceals or dilutes an emission of air contaminant that would otherwise violate an air pollution control regulation. (2) No equipment that may produce emissions shall be operated or maintained in such a manner as to create a public nuisance.
- B. ARM 17.8, Subchapter 2 Ambient Air Quality, including, but not limited to:
 - 1. ARM 17.8.204 Ambient Air Monitoring
 - 2. ARM 17.8.210 Ambient Air Quality Standards for Sulfur Dioxide
 - 3. ARM 17.8.211 Ambient Air Quality Standards for Nitrogen Dioxide
 - 4. ARM 17.8.212 Ambient Air Quality Standards for Carbon Monoxide
 - 5. ARM 17.8.213 Ambient Air Quality Standard for Ozone
 - 6. ARM 17.8.214 Ambient Air Quality Standard for Hydrogen Sulfide
 - 7. ARM 17.8.220 Ambient Air Quality Standard for Settled Particulate Matter
 - 8. ARM 17.8.221 Ambient Air Quality Standard for Visibility
 - 9. ARM 17.8.222 Ambient Air Quality Standard for Lead
 - 10. ARM 17.8.223 Ambient Air Quality Standard for PM₁₀
 - 11. ARM 17.8.230 Fluoride in Forage

Interstate must maintain compliance with the applicable ambient air quality standards

- C. ARM 17.8, Subchapter 3 Emission Standards, including, but not limited to:
 - 1. <u>ARM 17.8.304 Visible Air Contaminants</u>. This rule requires that no person may cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes.
 - 2. <u>ARM 17.8.308 Particulate Matter, Airborne</u>. (1) This rule requires an opacity limitation of less than 20% for all fugitive emission sources and that reasonable precautions be taken to control emissions of airborne particulate matter. (2) Under this rule, Interstate shall not cause or authorize the use of any street, road, or parking lot without taking reasonable precautions to control emissions of airborne particulate matter.
 - 3. <u>ARM 17.8.309 Particulate Matter, Fuel Burning Equipment</u>. This rule requires that no person shall cause or authorize to be discharged into the atmosphere particulate matter caused by the combustion of fuel in excess of the amount determined by this section.
 - 4. <u>ARM 17.8.310 Particulate Matter, Industrial Processes</u>. This rule requires that no person shall cause or authorize to be discharged into the atmosphere particulate matter in excess of the amount set forth in this section.
 - 5. <u>ARM 17.8.322 Sulfur Oxide Emissions--Sulfur in Fuel</u>. This rule requires that no person shall burn liquid, solid, or gaseous fuel in excess of the amount set forth in this section.

- 6. ARM 17.8.340 Standard of Performance for New Stationary Sources and Emission Guidelines for Existing Sources. This rule incorporates, by reference, 40 CFR Part 60, Standards of Performance for New Stationary Sources (NSPS). Interstate is considered an NSPS affected facility under 40 CFR Part 60 and is subject to the requirements of the following subparts.
 - a. <u>40 CFR 60, Subpart A General Provisions</u> apply to all equipment or facilities subject to an NSPS Subpart as listed below:
 - b. 40 CFR 60, Subpart OOO Standards of Performance for Nonmetallic Mineral Processing Plants. In order for a crushing plant to be subject to this subpart, the facility must meet the definition of an affected facility and, the affected equipment must have been constructed, reconstructed, or modified after August 31, 1983. Based on the information previously submitted by Interstate in the original application, the portable crushing equipment to be used under MAQP #3207-01 is subject to this subpart because it meets the definition of an affected facility and was constructed or modified after August 31, 1983.
 - Ignition Internal Combustion Engines (CI ICE). Owners and operators of stationary CI ICE that commence construction after July 11, 2005, where the stationary CI ICE are manufactured after April 1, 2006, and are not fire pump engines, and owners and operators of stationary CI ICE that modify or reconstruct their stationary CI ICE after July 11, 2005, are subject to this subpart. Based on the information submitted by Interstate, the CI ICE equipment to be used under MAQP #3207-01 is not subject to this subpart because the engine was manufactured before April 1, 2006. As this permit is written in a de minimis friendly manner, future engines may be subject to this subpart.
- 7. ARM 17.8.342 Emission Standards for Hazardous Air Pollutants for Source Categories. This rule incorporates, by reference, 40 CFR Part 63, National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Source Categories. Interstate is considered a NESHAP-affected facility under 40 CFR Part 63 and is subject to the requirements of the following subparts.
 - a. <u>40 CFR 63, Subpart A General Provisions</u> apply to all equipment or facilities subject to a NESHAPs Subpart as listed below.
 - Pollutants (HAPs) for Stationary Reciprocating Internal Combustion Engines (RICE). An owner or operator of an existing, new or reconstructed stationary reciprocating internal combustion engine (RICE) at a major or area source of HAP emissions is subject to this rule except if the stationary RICE is being tested at a stationary RICE test cell/stand. An area source of HAP emissions is a source that is not a major source. A diesel RICE engine operated by Interstate will be subject to this Maximum Available Control Technology (MACT) standard as a stationary source if the engine remains or will remain at the permitted location for more than 12 months, or a shorter period of time for an engine located at a seasonal source. A seasonal source remains at a single location on a permanent basis (at least 2 years) and operates 3 months or more each year. Since the permit is written in a de minimis friendly manner, area source provisions of the MACT requirements may apply to the facility engines.

- D. ARM 17.8, Subchapter 5 Air Quality Permit Application, Operation and Open Burning Fees, including, but not limited to:
 - 1. ARM 17.8.504 Air Quality Permit Application Fees. This rule requires that an applicant submit an air quality permit application fee concurrent with the submittal of an air quality permit application. A permit application is incomplete until the proper application fee is paid to the Department. A permit fee is not required for the current permit action because the permit action is considered an administrative permit change.
 - 2. <u>ARM 17.8.505 Air Quality Operation Fees</u>. An annual air quality operation fee must, as a condition of continued operation, be submitted to the Department by each source of air contaminants holding an air quality permit, excluding an open burning permit, issued by the Department.

An air quality operation fee is separate and distinct from an air quality permit application fee. The annual assessment and collection of the air quality operation fee, described above, shall take place on a calendar-year basis. The Department may insert into any final permit issued after the effective date of these rules, such conditions as may be necessary to require the payment of an air quality operation fee on a calendar-year basis, including provisions that pro-rate the required fee amount.

- E. ARM 17.8, Subchapter 7 Permit, Construction and Operation of Air Contaminant Sources, including, but not limited to:
 - 1. <u>ARM 17.8.740 Definitions</u>. This rule is a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.
 - 2. <u>ARM 17.8.743 Montana Air Quality Permits--When Required</u>. This rule requires a person to obtain an air quality permit or permit modification to construct, modify, or use any asphalt plant, crusher or screen that has the potential to emit (PTE) greater than 15 TPY of any pollutant. Interstate has a PTE greater than 15 TPY of PM₁₀, NO_x, and, carbon Monoxide (CO); therefore, an air quality permit is required.
 - 3. <u>ARM 17.8.744 Montana Air Quality Permits--General Exclusions</u>. This rule identifies the activities that are not subject to the Montana Air Quality Permit program.
 - 4. <u>ARM 17.8.745 Montana Air Quality Permits--Exclusion for De Minimis Changes</u>. This rule identifies the de minimis changes at permitted facilities that do not require a permit under the Montana Air Quality Permit Program.
 - 5. ARM 17.8.748 New or Modified Emitting Units--Permit Application Requirements.

 (1) This rule requires that a permit application be submitted prior to installation, modification, or use of a source. A permit application was not required for the current permit action because the permit change is considered an administrative permit change. (7) This rule requires that the applicant notify the public by means of legal publication in a newspaper of general circulation in the area affected by the application for a permit. An affidavit of publication of public notice was not required for the current permit action because the permit change is considered an administrative permit change.

- 6. ARM 17.8.749 Conditions for Issuance or Denial of Permit. This rule requires that the permits issued by the Department must authorize the construction and operation of the facility or emitting unit subject to the conditions in the permit and the requirements of this subchapter. This rule also requires that the permit must contain any conditions necessary to assure compliance with the Federal Clean Air Act (FCAA), the Clean Air Act of Montana, and rules adopted under those acts.
- 7. <u>ARM 17.8.752 Emission Control Requirements</u>. This rule requires a source to install the maximum air pollution control capability that is technically practicable and economically feasible, except that BACT shall be utilized. The required BACT analysis is included in Section III of this permit analysis.
- 8. <u>ARM 17.8.755 Inspection of Permit</u>. This rule requires that air quality permits shall be made available for inspection by the Department at the location of the source.
- 9. <u>ARM 17.8.756 Compliance with Other Requirements.</u> This rule states that nothing in the permit shall be construed as relieving Interstate of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided in ARM 17.8.740, *et seq*.
- 10. <u>ARM 17.8.759 Review of Permit Applications</u>. This rule describes the Department's responsibilities for processing permit applications and making permit decisions on those permit applications that do not require the preparation of an environmental impact statement.
- 11. ARM 17.8.762 Duration of Permit. An air quality permit shall be valid until revoked or modified, as provided in this subchapter, except that a permit issued prior to construction of a new or modified source may contain a condition providing that the permit will expire unless construction is commenced within the time specified in the permit, which in no event may be less than 1 year after the permit is issued.
- 12. ARM 17.8.763 Revocation of Permit. An air quality permit may be revoked upon written request of the permittee, or for violations of any requirement of the Clean Air Act of Montana, rules adopted under the Clean Air Act of Montana, the FCAA, rules adopted under the FCAA, or any applicable requirement contained in the Montana State Implementation Plan (SIP).
- 13. ARM 17.8.764 Administrative Amendment to Permit. An air quality permit may be amended for changes in any applicable rules and standards adopted by the Board of Environmental Review (Board) or changed conditions of operation at a source or stack that do not result in an increase of emissions as a result of those changed conditions. The owner or operator of a facility may not increase the facility's emissions beyond permit limits unless the increase meets the criteria in ARM 17.8.745 for a de minimis change not requiring a permit, or unless the owner or operator applies for and receives another permit in accordance with ARM 17.8.748, ARM 17.8.749, ARM 17.8.752, ARM 17.8.755, and ARM 17.8.756, and with all applicable requirements in ARM Title 17, Chapter 8, Subchapters 8, 9, and 10.
- 14. ARM 17.8.765 Transfer of Permit. (1) This rule states that an MAQP may be transferred from one location to another if the Department receives a complete notice of intent to transfer location, the facility will operate in the new location for less than 1 year, the facility will comply with the FCAA and the Clean Air Act of Montana, and the facility complies with other applicable rules. (2) This rule states that an air quality

permit may be transferred from one person to another if written notice of intent to transfer, including the names of the transferor and the transferee, is sent to the Department.

- F. ARM 17.8, Subchapter 8 Prevention of Significant Deterioration of Air Quality, including, but not limited to:
 - 1. <u>ARM 17.8.801 Definitions</u>. This rule is a list of applicable definitions used in this subchapter.
 - 2. ARM 17.8.818 Review of Major Stationary Sources and Major Modifications--Source Applicability and Exemptions. The requirements contained in ARM 17.8.819 through ARM 17.8.827 shall apply to any major stationary source and any major modification with respect to each pollutant subject to regulation under the FCAA that it would emit, except as this subchapter would otherwise allow.

This facility is not a major stationary source because it is not a listed source and the facility's PTE is less than 250 TPY of any pollutant (excluding fugitive emissions).

- G. ARM 17.8, Subchapter 12 Operating Permit Program Applicability, including, but not limited to:
 - 1. <u>ARM 17.8.1201 Definitions</u>. (23) Major Source under Section 7412 of the FCAA is defined as any stationary source having:
 - a. PTE > 100 tons/year of any pollutant
 - b. PTE > 10 tons/year of any one hazardous air pollutant (HAP), PTE > 25 tons/year of a combination of all HAPs, or a lesser quantity as the Department may establish by rule; or
 - c. PTE > 70 tons/year of PM_{10} in a serious PM_{10} nonattainment area.
 - 2. ARM 17.8.1204 Air Quality Operating Permit Program Applicability. (1) Title V of the FCAA Amendments of 1990 requires that all sources, as defined in ARM 17.8.1204 (1), obtain a Title V Operating Permit. In reviewing and issuing MAQP #3207-01 for Interstate, the following conclusions were made.
 - a. The facility's PTE is less than 100 tons/year for any pollutant.
 - b. The facility's PTE is less than 10 tons/year for any one HAP and less than 25 tons/year of all HAPs.
 - c. This source is not located in a serious PM₁₀ nonattainment area.
 - d. This facility is subject to a current NSPS standard (40 CFR 60, Subpart OOO).
 - e. This facility is potentially subject to a current NESHAP standard (40 CFR 63, Subpart ZZZZ).
 - f. This source is not a Title IV affected source.
 - g. This source is not a solid waste combustion unit.
 - h. This source is not an EPA designated Title V source.

Interstate requested federally-enforceable permit limitations to remain a minor source of emissions with respect to Title V. Based on these limitations, the Department determined that this facility is not subject to the Title V Operating Permit Program. However, in the event that the EPA makes minor sources that are subject to NSPS obtain a Title V Operating Permit, this source will be subject to the Title V Operating Permit Program.

- i. ARM 17.8.1204(3). The Department may exempt a source from the requirement to obtain an air quality operating permit by establishing federally enforceable limitations which limit that source's PTE.
 - i. In applying for an exemption under this section, the owner or operator of the facility shall certify to the Department that the source's PTE does not require the source to obtain an air quality operating permit.
 - ii. Any source that obtains a federally enforceable limit on PTE shall annually certify that its actual emissions are less than those that would require the source to obtain an air quality operating permit.
- 3. <u>ARM 17.8.1207 Certification of Truth, Accuracy, and Completeness.</u> The compliance certification submittal by ARM 17.8.1204(3) shall contain certification by a responsible official of truth, accuracy, and completeness. This certification and any other certification required under this subchapter shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete

III. BACT Determination

A BACT determination is required for each new or modified source. Interstate shall install on the new or modified source the maximum air pollution control capability which is technologically practicable and economically feasible, except that BACT shall be utilized. A BACT determination was not required for the current permit action because the permit change is considered an administrative permit change.

IV. Emission Inventory

	tons/year						
Emission Source	PM	PM10	PM2.5	NOx	CO	VOC	SO2
Engine Generator: (2,012 bhp)	5.53	5.53	5.53	77.95	16.80	6.32	5.15
Crushers (4): (1,500 TPH total)		3.55	0.66				
Screens (3): (1,000 TPH total)		3.24	0.22				
Haul Roads		3.13	0.31				
Conveyor Transfer Point (57 transfers)							
(controlled)	17.48	5.74	1.62				
Pile Forming (1 pile)		1.75	0.27				
Bulk Loading (3 loads)		0.66	0.66				
Total Emissions	56.26	23.61	9.27	77.95	16.80	6.32	5.15

Footnotes:

** CO = carbon monoxide

 $HAPs = hazardous \ air \ pollutants$

bhp = brake horsepower

lb = pound

N/A = not applicable

a. Inventory reflects enforceable limits on the diesel engine/generator hours of operation (2,500 hrs/yr) to keep allowable emissions (NO_x) below the Title V threshold AND 80 TPY.

b. Operating limits on the crushers, screens and material handling equipment were eliminated because they were found to be unnecessary to keep PM_{10} emissions below 80 TPY.

ND = no data available NO_X = oxides of nitrogen PM = particulate matter

 PM_{10} = particulate matter with an aerodynamic diameter of 10 microns or less $PM_{2.5}$ = particulate matter with an aerodynamic diameter of 2.5 microns or less

SO_X = oxides of sulfur TPH = tons per hour

TPY = tons per year VOC = volatile organic compounds

yr = year

Engine Generator: (2,012 bhp)		
Operational Capacity of Engine = 1500 kW x 1.34 bhp/kW =	2,012	bhp
Engine = 1,500kW (applicant's info)	1,500	kW
Hours of Operation = 2,500 hours/yr	2,500	hours/yr
	24.00	hrs/day
PM Emissions: (AP-42, Sec. 3.3, Table 3.3-1, 10/96)		
(Assume PM = PM10= PM2.5)		
Emission Factor =	2.20E-03	lbs/hp-hr
Calculation: (2,012 bhp) * (2,500 hours/yr) * (0.0022 lbs/hp-hr) * (ton/2000 lb) =	5.53	TPY
Calculation: (2,012 bhp) * (2,500 hours/yr) * (0.0022 lbs/hp-hr) =	11,063.25	lbs/yr
Calculation: (2,012 bhp) * (24 hrs/day) * (0.0022 lbs/hp-hr) =	106.21	lbs/day
NOx Emissions: (AP-42, Sec. 3.3, Table 3.3-1, 10/96)		
Emission Factor =	3.10E-02	lbs/hp-hr
Calculation: (2,012 bhp) * (2,500 hours/yr) * (0.0310 lbs/hp-hr) * (ton/2000 lb) =	77.95	TPY
Calculation: (2,012 bhp) * (2,500 hours/yr) * (0.0310 lbs/hp-hr) =	155,891.25	lbs/yr
Calculation: (2,012 bhp) * (24 hrs/day) * (0.0310 lbs/hp-hr) =	1,496.56	lbs/day
Calculation: (2,012 only) (24 ms/day) (0.0310 los/np-m) =	1,470.30	105/day
CO Emissions: (AP-42, Sec. 3.3, Table 3.3-1, 10/96)		
Emission Factor =	6.68E-03	lbs/hp-hr
Calculation: (2,012 bhp) * (2,500 hours/yr) * (0.00668 lbs/hp-hr) * (ton/2000 lb) =	16.80	TPY
Calculation: (2,012 bhp) * (2,500 hours/yr) * (0.00668 lbs/hp-hr) =	33,592.05	lbs/yr
Calculation: (2,012 bhp) * (24 hrs/day) * (0.00668 lbs/hp-hr) =	322.48	lbs/day
VOC Emissions: (AP-42, Sec. 3.3, Table 3.3-1, TOC, Exhaust + Crankcase, 10/96)	ı	
Emission Factor =	2.51E-03	lbs/hp-hr
Calculation: (2,012 bhp) * (2,500 hours/yr) * (0.00251 lbs/hp-hr) * (ton/2000 lb) =	6.32	TPY
Calculation: $(2,012 \text{ bhp}) * (2,500 \text{ hours/yr}) * (0.00251 \text{ lbs/hp-hr}) =$	12,642.78	lbs/yr
Calculation: (2,012 bhp) * (24 hrs/day) * (0.00251 lbs/hp-hr) =	121.37	lbs/day
SOx Emissions: (AP-42, Sec. 3.3, Table 3.3-1, 10/96)		
	2.050.02	lha/hm hr
Emission Factor =	2.05E-03	lbs/hp-hr TPY
Calculation: (2,012 bhp) * (2,500 hours/yr) * (0.00205 lbs/hp-hr) * (ton/2000 lb) = Calculation: (2,012 bhp) * (2,500 hours/yr) * (0.00205 lbs/hp-hr) =	5.15	
Calculation: $(2,012 \text{ bnp}) * (2,500 \text{ nours/yr}) * (0.00205 \text{ lbs/hp-hr}) =$ Calculation: $(2,012 \text{ bhp}) * (24 \text{ hrs/day}) * (0.00205 \text{ lbs/hp-hr}) =$	10,308.94 98.97	lbs/yr lbs/day
Calculation. (2,012 onp) · (24 ins/day) · (0.00203 ios/np-in) =	70.7/	108/449
Crushers (4): (1500 TPH total)		
Process Rate		TPH
Hours of operation:	8,760	hrs/yr
PM Emissions: (AP 42, Table 11.19.2-2, 8/04, controlled)		
Emission Factor	0.0012	lb/ton
Calculation: (1500 TPH) * (8760 hrs/yr) * (0.0012 lb/ton) * (ton/2000 lb) =		TPY
Daily Calculation: (1500 TPH) * (0.0012 lb/ton) * (24 hr/day) = 43.20 lb/day		lb/day
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PM ₁₀ Emissions: (AP 42, Table 11.19.2-2, 8/04, controlled) Emission Factor	0.00054	lb/ton	
Calculation: (1,500 TPH) * (8760 hrs/yr) * (0.00054 lb/ton) * (ton/2000 lb) = Daily Calculation: (1500 TPH) * (0.00054 lb/ton) * (24 hr/day) = 19.44 lb/day	3.55 19.44	TPY lb/day	
PM _{2.5} Emissions: (AP 42, Table 11.19.2-2, 8/04, controlled)			
Emission Factor Calculation: (1,500 TPH) * (8760 hrs/yr) * (0.0001 lb/ton) * (ton/2000 lb) =	0.0001	lb/ton	
Daily Calculation: $(1,500 \text{ TPH}) * (8700 \text{ lis/yr}) * (0.0001 \text{ lb/ton}) * (1500 \text{ TPH}) * (0.0001 \text{ lb/ton}) * (24 \text{ hr/day}) = 3.60 \text{ lb/day}$	0.66 3.60	TPY lb/day	
Screens (3): (1000 TPH total)			
Hours of Operation	8,760	hrs/yr	
Process Rate	1,000	TPH	
Total PM Emissions: (AP 42, Table 11.19.2-2, 8/04)			
Emission Factor	0.0022	lb/ton	
Calculation: (1,000 TPH) * (8760 hrs/yr) * (0.0022 lb/ton) * (ton/2000 lb) =	9.64	TPY	
Daily Calculation: (1,000 TPH) * (0.0022 lb/ton) * 24 hrs/day = 52.80 lb/day	52.80	lb/day	
Total PM10 Emissions: (AP 42, Table 11.19.2-2, 8/04)			
Emission Factor	0.00074	lb/ton	
Calculation: (1,000 TPH) * (8760 hrs/yr) * (0.00074 lb/ton) * (ton/2000 lb) = Daily Calculation: (1,000 TPH) * (0.00074 lb/ton) * 24 hrs/day = 17.76 lb/day	3.24 17.76	TPY lb/day	
Daily Calculation. (1,000 1111) (0.00074 lo/ton) 24 lifs/day = 17.70 lo/day	17.70	10/day	
Total PM2.5 Emissions: (AP 42, Table 11.19.2-2, 8/04)			
Emission Factor	0.00005	lb/ton	
Calculation: (1,000 TPH) * (8760 hrs/yr) * (0.00005 lb/ton) * (ton/2000 lb) = Daily Calculation: (1,000 TPH) * (0.00005 lb/ton) * 24 hrs/day = 1.20 lb/day	0.22 1.20	TPY lb/day	
Dully Calculation. (1,000 1111) (0.00003 10/1011) 21 ms/day = 1.20 10/1011	1.20	10/day	
Conveyor Transfer Point (57 transfers) (controlled)		7 00	
Process Rate Hours of Operation		500 8,760	TPH hrs/yr
Number of Transfers		57	transfer
			
Total PM Emissions: (AP 42, Table 11.19.2-2, 8/04)			
Emission Factor		0.00014	lb/ton
Calculation: (500 TPH) * (8760 hrs/yr) * (0.00014 lb/ton) * (ton/2000 lb) * (57 transfer) Daily Calculation: (500 TPH) * (0.00014 lb/ton) * (57 transfer)* 24 hr/day =	er) =	17.48 95.76	TPY lb/day
Daily Calculation. (500 1111) (0.00014 10/toll) (57 transici) 24 lifday =		93.70	10/day
Total PM ₁₀ Emissions: (AP 42, Table 11.19.2-2, 8/04)			
Emission Factor		.60E-05	lb/ton
Calculation: (500 TPH) * (8760 hrs/yr) * (0.000046 lb/ton) * (ton/2000 lb) * (57 transfer) Calculation: (500 TPH) * (0.000046 lb/ton) * (57 transfer) 24 hr/day =	ier) =	5.74 31.46	TPY lb/day
Daily Calculation. (300 1111) (0.000040 lo/toll) (37 transier) 24 lii/day –		31.40	10/uay
Total PM _{2.5} Emissions: (AP 42, Table 11.19.2-2, 8/04)			
Emission Factor		.30E-05	lb/ton
Calculation: (500 TPH) * (8760 hrs/yr) * (0.000013 lb/ton) * (ton/2000 lb) * (57 trans	fer) =	1.62	TPY
Daily Calculation: (500 TPH) * (0.000013 lb/ton) * (57 transfer)* 24 hr/day =		8.89	lb/day

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Pile Forming (1 pile)			
Process Rate	500	TPH	
Hours of Operation	8,760	hrs/yr	
	24	hrs/day	y
Number of Piles	1	piles	
PM Emissions: (AP 42, Sec. 13.2.4.3, 11/06)			
Emission Factor = $k (0.0032) * (U/5)^1.3 * (M/2)^-1.4 =$	0.00169	lb/ton	
Where: $k = particle size multiplier$ (value for PM < 30 microns per AP 42, Sec. 13.2.4.3, 11/06)	0.74		
U = mean wind speed (Average from values provided in AP 42, Sec. 13.2.4.3, 11/06)	8.15	mph	
M = material moisture content (from previous permit version)	4.00	%	
Control Efficiency	0	%	
Calculation: (500 TPH) * (8760 hrs/yr) * (0.00169 lb/ton) * (ton/2000 lb) * (1 piles) =	3.71	TPY	
Calculation: (500 TPH) * (8760 hrs/yr) * (0.00169) * (ton/2000 lb) * (1 piles) * (1-0/100)=	3.71	TPY	
Daily Calculation: (500 TPH) * (0.00169 lb/ton) * (1 piles) * 24 hr/day =	20.32	lb/day	
PM ₁₀ Emissions: (AP 42, Sec. 13.2.4.3, 11/06)			
Emission Factor = $k (0.0032) * (U/5)^1.3 * (M/2)^-1.4 =$	0.00080	lb/ton	
Where: $k = particle \text{ size multiplier}$ (value for PM < 30 microns per AP 42, Sec. 13.2.4.3, 11/06)	0.35		
U = mean wind speed (Average from values provided in AP 42, Sec. 13.2.4.3, 11/06)	8.15	mph	
M = material moisture content (from previous permit version)	4.00	%	
Control Efficiency	0	%	
Calculation: (500 TPH) * (8760 hrs/yr) * (0.00080 lb/ton) * (ton/2000 lb) * (1 piles) =	1.75	TPY	
Calculation: (500 TPH) * (8760 hrs/yr) * (0.00080) * (ton/2000 lb) * (1 piles) * (1-0/100)=	1.75	TPY	
Daily Calculation: (500 TPH) * (0.00080 lb/ton) * (1 piles) * 24 hr/day =	9.61	lb/day	
PM _{2.5} Emissions: (AP 42, Sec. 13.2.4.3, 11/06)			
Emission Factor = $k (0.0032) * (U/5)^1.3 * (M/2)^-1.4 =$	0.00012	lb/ton	
Where: $k = \text{particle size multiplier}$ (value for PM < 30 microns per AP 42, Sec. 13.2.4.3, 11/06)	0.053	10/1011	
U = mean wind speed (Average from values provided in AP 42, Sec. 13.2.4.3, 11/06)	8.15	mph	
M = material moisture content (from previous permit version)	4.00	%	
Control Efficiency			
Calculation: (500 TPH) * (8760 hrs/yr) * (0.00012 lb/ton) * (ton/2000 lb) * (1 piles) =	0 0.27	% TPY	
Calculation: (500 TPH) * (8760 hrs/yr) * (0.00012 h/toh) * (toh/2000 h) * (1 piles) * (1-0/100)=	0.27	TPY	
Daily Calculation: (500 TPH) * (0.00012 b/ton) * (1 piles) * 24 hr/day =	1.46	lb/day	
Bulk Loading (3 loads)			
Process Rate		500	TPH
Hours of Operation		8,760	hrs/yr
Number of Loads		24	hrs/day
Number of Loads		3	load
PM Emissions: (AP 42, Sec. 11.19.2-2, 8/2004)			
Emission Factor	1.0	00E-04	lb/ton
Control Efficiency		0	%
C 1 1 (500 EDII) + (07(01 /) + (0.00010 II /) + (1.10000 II) + (2.1 II)		0	TENT I

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0.66 TPY

3.60 lb/day

TPY

0.66

Calculation: (500 TPH) * (8760 hrs/yr) * (0.00010 lb/ton) * (ton/2000 lb) * (3 load) =

Daily Calculation: (500 TPH) * (0.00010 lb/ton) * (3 load) * 24 hr/day=

Calculation: (500 TPH) * (8760 hrs/yr) * (0.00010 lb/ton) * (ton/2000 lb) * (3 load) * (1 - 0/100) =

PM ₁₀ Emissions: (AP 42, Sec. 11.19.2-2, 8/2004)			
Emission Factor			lb/ton
Control Efficiency			%
Calculation: (500 TPH) * (8760 hrs/yr) * (0.00010 lb/ton) * (ton/2000 lb) * (3 load) =	0.0\	0.66	TPY
Calculation: (500 TPH) * (8760 hrs/yr) * (0.00010 lb/ton) * (ton/2000 lb) * (3 load) * (1 - 0/1	.00) =	0.66	TPY
Daily Calculation: (500 TPH) * (0.00010 lb/ton) * (3 load) * 24 hr/day=		3.60	lb/day
PM _{2.5} Emissions: (AP 42, Sec. 11.19.2-2, 8/2004)			
Emission Factor = $k (0.0032) * (U/5)^1.3 * (M/2)^1.4 = 0.00010 $ lb/ton		1.00E-04	lb/ton
Control Efficiency		0	%
Calculation: (500 TPH) * (8760 hrs/yr) * (0.00010 lb/ton) * (ton/2000 lb) * (3 load) =		0.66	TPY
Calculation: (500 TPH) * (8760 hrs/yr) * (0.00010 lb/ton) * (ton/2000 lb) * (3 load) * (1 - 0/1	= (00)	0.66	TPY
Daily Calculation: (500 TPH) * (0.00010 lb/ton) * (3 load) * 24 hr/day=		3.60	lb/day
Haul Roads			
Vehicle Miles Traveled	5	VMT/day	
VMT per Hour	0.21	VMT/hr	
Hours of Operation	8,760	hrs/yr	
	365	days/yr	
PM Emissions: (AP 42, Ch. 13.2.2, 11/06)			
Emission Factor = $k * (s / 12)^a * (W / 3)^b =$	12.46	lb/VMT	
Where: $k = \text{constant}$ (Value for PM30/TSP, AP 42, Table 13.2.2-2, 11/06)	4.9	lbs/VMT	
s=surface silt content (sand/gravel processing, material storage area, AP 42, Table 13.2.2-1, 11/06)	7.1	%	
W = mean vehicle weight (1994 average loaded/unloaded or a 40 ton truck)	54	tons	
a = constant (Value for PM30/TSP, AP 42, Table 13.2.2-2, 11/06)	0.7	10115	
b = constant (Value for PM30/TSP, AP 42, Table 13.2.2-2, 11/06)	0.45		
Control Efficiency	0	%	
Calculation: (8760 hrs/yr) * (0.21 VMT/hr) * (12.46 lb/VMT) * (ton/2000 lb) =	11.37	TPY	
Calculation: (8760 hrs/yr) * (0.21 VMT/hr) * (12.46 lb/VMT) * (ton/2000 lb) * (1-0/100) =	11.37	TPY	
Daily Calculation: (5.00 VMT/day) * (12.46 lb/VMT) =	62.30	lbs/day	
PM ₁₀ Emissions: (AP 42, Ch. 13.2.2, 11/06)			
Emission Factor = $k * (s / 12)^a * (W / 3)^b =$	3.43	lb/VMT	
Where: $k = \text{constant}$ (Value for PM10, AP 42, Table 13.2.2-2, 11/06)	1.5	lbs/VMT	
s=surface silt content (sand/gravel processing, material storage area, AP 42, Table 13.2.2-1, 11/06)	7.1	%	
W = mean vehicle weight (1994 average loaded/unloaded or a 40 ton truck)	54	tons	
a = constant (Value for PM10, AP 42, Table 13.2.2-2, 11/06)	0.9		
b = constant (Value for PM10, AP 42, Table 13.2.2-2, 11/06)	0.45		
Control Efficiency	0	%	
Calculation: (8760 hrs/yr) * (0.21 VMT/hr) * (3.43 lb/VMT) * (ton/2000 lb) =	3.13	TPY	
Calculation: (8760 hrs/yr) * (0.21 VMT/hr) * (3.43 lb/VMT) * (ton/2000 lb) * (1-0/100) =	3.13	TPY	
Daily Calculation: (5.00 VMT/day) * (3.43 lb/VMT) =	17.17	lbs/day	
PM _{2.5} Emissions: (AP 42, Ch. 13.2.2, 11/06)			
Emission Factor = $k * (s / 12)^a * (W / 3)^b =$	0.34	lb/VMT	
Where: $k = \text{constant}$ (Value for PM2.5, AP 42, Table 13.2.2-2, 11/06)			
s=surface silt content (sand/gravel processing, material storage area, AP 42, Table 13.2.2-1, 11/06) 7.1			
W = mean vehicle weight (1994 average loaded/unloaded or a 40 ton truck) 54			
a = constant (Value for PM2.5, AP 42, Table 13.2.2-2, 11/06)			
b = constant (Value for PM2.5, AP 42, Table 13.2.2-2, 11/06)	0.45		

Control Efficiency 0 % Calculation: (8760 hrs/yr) * (0.21 VMT/hr) * (0.34 lb/VMT) * (ton/2000 lb) = 0.31 TPY Calculation: (8760 hrs/yr) * (0.21 VMT/hr) * (0.34 lb/VMT) * (ton/2000 lb) * (1-0/100) = 0.31 TPY Daily Calculation: (5.00 VMT/day) * (0.34 lb/VMT) = 1.72 lbs/day

V. Existing Air Quality

MAQP #3207-01 and Addendum 2 are issued for the operation of a portable crushing and screening plant to be located in various locations throughout Montana and while operating at any location in or within 10 km of certain PM_{10} nonattainment areas during the summer months (April 1 – September 30). The more stringent operating conditions contained in the addendum will minimize any potential impact on the nonattainment areas and will protect the national ambient air quality standards. Also, this facility is a portable source that would be expected to operate on an intermittent and temporary basis and any effects on air quality would be expected to be minor and short-lived

VI. Air Quality Impacts

The Department determined that there will be minor impacts from this permitting action because this permitting action is considered an administrative action and the permit action resulted in a reduction of potential emissions. Therefore, the Department believes this action will not cause or contribute to a violation of any ambient air quality standard.

VII. Ambient Air Impact Analysis

Based on the information provided and the conditions established in MAQP #3207-01, the Department determined that the impact from this permitting action will be minor. The Department believes it will not cause or contribute to a violation of any ambient air quality standard.

VIII. Taking or Damaging Implication Analysis

As required by 2-10-105, MCA, the Department conducted the following private property taking and damaging assessment.

YES	NO	
X		1. Does the action pertain to land or water management or environmental regulation affecting private real property or water rights?
	X	2. Does the action result in either a permanent or indefinite physical occupation of private property?
	X	3. Does the action deny a fundamental attribute of ownership? (ex.: right to exclude others, disposal of property)
	X	4. Does the action deprive the owner of all economically viable uses of the property?
	X	5. Does the action require a property owner to dedicate a portion of property or to grant an easement? [If no, go to (6)].
		5a. Is there a reasonable, specific connection between the government requirement and legitimate state interests?
		5b. Is the government requirement roughly proportional to the impact of the proposed use of the property?
	X	6. Does the action have a severe impact on the value of the property? (consider economic impact, investment-backed expectations, character of government action)
	X	7. Does the action damage the property by causing some physical disturbance with respect to the property in excess of that sustained by the public generally?

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X	7a. Is the impact of government action direct, peculiar, and significant?
X	7b. Has government action resulted in the property becoming practically inaccessible, waterlogged or flooded?
X	7c. Has government action lowered property values by more than 30% and necessitated the physical taking of adjacent property or property across a public way from the property in question?
X	Takings or damaging implications? (Taking or damaging implications exist if YES is checked in response to question 1 and also to any one or more of the following questions: 2, 3, 4, 6, 7a, 7b, 7c; or if NO is checked in response to questions 5a or 5b; the shaded areas)

Based on this analysis, the Department determined there are no taking or damaging implications associated with this permit action.

IX. Environmental Assessment

This permitting action will not result in an increase of emissions from the facility and is considered an administrative action; therefore, an environmental assessment is not required.

Analysis prepared by: Deanne Fischer

Date: February 24, 2012

Addendum 2 Interstate Concrete and Asphalt Company Montana Air Quality Permit (MAQP) #3207-01

An addendum to MAQP #3207-01 is hereby granted to Interstate Concrete and Asphalt Company (Interstate) pursuant to Section 75-2-204 and 211 of the Montana Code Annotated (MCA), as amended, and Administrative Rules of Montana (ARM) 17.8.749 *et seq.*, as amended, for the following:

I. Permitted Equipment

Interstate owns and operates a portable non-metallic mineral processing facility consisting of 4 crushers (up to 1,500 tons per hour (TPH) combined maximum capacity), 3 screens (up to 1,000 TPH combined maximum capacity), 3 loadout bunkers, a diesel engine/generator (with a rated capacity up to 2,012 brake horsepower (bhp), and associated material handling and processing equipment (conveyors and transfer points).

II. Seasonal and Site Restrictions

Addendum 2 applies to the Interstate facility while operating at any location in or within 10 kilometers (km) of certain particulate matter with an aerodynamic diameter of 10 microns or less (PM_{10}) nonattainment areas (NAAs). Additionally, seasonal and site restrictions apply to the facility as follows:

- A. During the winter season (October 1-March 31) Interstate is not allowed to operate in or within 10 km of any PM₁₀ NAAs.
- B. During the summer season (April 1-September 30) Interstate may operate at any location in or within 10 kilometers of certain PM₁₀ NAAs, including, but not limited to Libby, Thompson Falls, Kalispell, Whitefish, Columbia Falls, and Butte.
- C. Interstate shall comply with the limitations and conditions contained in MAQP #3207-01 and Addendum 2 while operating in or within 10 km of any of the previously listed PM₁₀ NAAs. Addendum 2 shall be valid until revoked or modified. The Department of Environmental Quality (Department) reserves the authority to modify Addendum 2 at any time based on local conditions of any future site. These conditions may include, but are not limited to, local terrain, meteorological conditions, proximity to residences or other businesses, etc.

III. Limitations and Conditions

A. Operational Limitations and Conditions – Summer Season Only

- 1. Water spray bars must be available and operated, as necessary, on the crushers, screens, and all transfer points whenever the crushing/screening plant is in operation (ARM 17.8.749).
- 2. Interstate shall not cause or authorize to be discharged into the atmosphere from any equipment, any visible emissions that exhibit an opacity of 10% or greater averaged over 6 consecutive minutes (ARM 17.8.749). For NSPS-affected equipment constructed after April 22, 2008 for which an opacity limitation of 7% applies (such as screens and conveyors), that 7% limit shall apply to the affected equipment (ARM 17.8.340 and 40 CFR 60, Subpart OOO).

- 3. Interstate shall not cause or authorize to be discharged into the atmosphere from haul roads, access roads, parking lots, or the general plant property any visible fugitive emissions that exhibit an opacity of 10% or greater (ARM 17.8.749).
- 4. Interstate shall treat all unpaved portions of the access roads, parking lots, and general plant area with water and/or chemical dust suppressant as necessary to maintain compliance with the 10% opacity limitation (ARM 17.8.749).
- 5. Interstate shall not operate, or have on site, more than 4 crushers at any one time with a maximum combined rated design capacity of up to 1500 TPH. Total crusher production shall not exceed 36,000 tons per day (ARM 17.8.749).
- 6. Interstate shall not operate, or have on site, more than 3 screens at any one time with a maximum combined rated design capacity of up to 1000 TPH. Total screen production shall not exceed 24,000 tons per day (ARM 17.8.749).
- 7. Interstate shall not operate or have on-site more than one diesel engine/generator. The maximum capacity of the engine that drives the generator shall not exceed 2,012 bhp at any given time. The engine/generator may be operated 24 hours per day, but shall not exceed 2,500 hours per year, in accordance with the conditions in MAQP #3207-01 (ARM 17.8.749).

B. Operational Reporting Requirements

- 1. If this crushing/screening plant is moved to another nonattainment location, an Intent to Transfer form must be sent to the Department and a Public Notice Form for Change of Location must be published in a newspaper of general circulation in the area to which the transfer is to be made, at least 15 days prior to the move. The proof of publication (affidavit) of the Public Notice Form for Change of Location must be submitted to the Department prior to the move. These forms are available from the Department (ARM 17.8.749 and ARM 17.8.765)
- 2. Production information for the sites covered by this addendum must be maintained for 5 years and submitted to the Department upon request. The information must include (ARM 17.8.749):
 - a. Daily tons of material crushed by each crusher at each site (including amount of recirculated/rerun material). Interstate shall document, by day, the total crushing production. Interstate shall sum the total crushing production for the previous day to demonstrate compliance with the limitations in Sections III.A.5.
 - b. Daily tons of material screened by each screen at each site (including amount of recirculated/rerun material). Interstate shall document, by day, the total screening production. Interstate shall sum the total screening production for the previous day to demonstrate compliance with the limitations in Sections III.A.6.
 - c. Daily tons of bulk material loaded at each site (production).
 - d. Daily hours of operation at each site.
 - e. Daily hours of operation and the hp for each engine at each site
 - f. Fugitive dust information consisting of the daily total miles driven on unpaved roads within the operating site for all plant vehicles.

Addendum 2 Analysis Interstate Concrete and Asphalt Company Montana Air Quality Permit (MAQP) #3207-01

I. Permitted Equipment:

Interstate Concrete and Asphalt Company (Interstate) owns and operates a portable crushing/screening facility to be operated at various locations within Montana. Equipment used at this facility includes, but is not limited to:

- 4 crushers (up to 1,500 tons per hour (TPH) combined maximum capacity)
- 3 screens (up to 1,000 TPH combined maximum capacity)
- 3 loadout bunkers
- 1 diesel engine/generator (up to 2,012 brake horsepower (bhp) diesel engine); and
- Associated equipment (conveyors and transfer points)

II. Source Description

For a typical operational setup, quarried stone is dumped into the facility's primary crusher. The crushed material is conveyed to the primary screen. From the primary screen, the material is conveyed either to a secondary crusher or to the waste bunker. The secondary crusher crushes the material a second time and the material is then conveyed to the secondary screens. The secondary screens select separate product-sized material and over-sized material. The product-sized material is conveyed to loadout bunkers and the over-sized material is conveyed to the tertiary crusher to be crushed a third time to achieve the appropriately sized material.

III. Applicable Rules and Regulations

The following are partial quotations of some applicable rules and regulations that apply to the facility. The complete rules are stated in the Administrative Rules of Montana (ARM) and are available, upon request, from the Department of Environmental Quality (Department). Upon request, the Department will provide references for locations of complete copies of all applicable rules and regulations or copies where appropriate.

ARM 17.8, Subchapter 7 - Permit, Construction and Operation of Air Contaminant Sources, including, but not limited to:

- A. <u>ARM 17.8.749 Conditions for Issuance of Permit</u>. This rule requires that the permits issued by the Department must authorize the construction and operation of the facility or emitting unit subject to the conditions in the permit and the requirements of this subchapter. This rule also requires that the permit must contain any conditions necessary to assure compliance with the Federal Clean Air Act (FCAA), the Clean Air Act of Montana, and rules adopted under those acts.
- B. <u>ARM 17.8.764 Administrative Amendment to Permit</u>. An air quality permit may be amended for changes in any applicable rules and standards adopted by the Board of Environmental Review (Board) or changed conditions of operation at a source or stack that do not result in an increase of emissions as a result of those changed conditions. A source may not increase its emissions beyond those found in its permit unless the source applies for and receives another permit.

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- C. <u>ARM 17.8.765 Transfer of Permit</u>. An air quality permit may be transferred from one location to another if:
 - 1. Written notice of intent to transfer location and proof of public notice are sent to the Department;
 - 2. The source will operate in the new location for a period of less than 1 year; and
 - 3. The source will not have any significant impact on any nonattainment area or any Class I area.

IV. Emission Inventory

	lbs/day						
Emission Source	PM	PM10	PM2.5	NOx	CO	VOC	SO2
Engine Generator: (2,012 bhp)	106.21	106.21	106.21	1496.56	322.48	121.37	98.97
Crushers (4): (1500 TPH total)	43.20	19.44	3.60				
Screens (3): (1000 TPH total)	52.80	17.76	1.20				
Haul Roads	62.30	17.17	1.72				
Conveyor Transfer Point (57 transfers)							
(controlled)	95.76	31.46	8.89				
Pile Forming (1 pile)	20.32	9.61	1.46				
Bulk Loading (3 loads)	3.60	3.60	3.60		·		·
Total Emissions	384.19	205.25	126.67	1496.56	322.48	121.37	98.97

<547 lbs/day

Footnotes: PM₁₀ emissions are less than 547 pounds per day

The engine/generator may be operated 24 hours/ day, but not more than 2,500 hrs/yr in accordance with the conditions and limitations in MAQP#3207-01.

A complete emission inventory for Permit Addendum 2 is included in the MAQP#3207-01 permit analysis

** CO = carbon monoxide

HAPs = hazardous air pollutants

bhp = brake horsepower

lb = pound

N/A = not applicable

ND = no data available

NO_X = oxides of nitrogen

PM = particulate matter

 $PM_{10} = particulate$ matter with an aerodynamic diameter of 10 microns or less

 $PM_{2.5}$ = particulate matter with an aerodynamic diameter of 2.5 microns or less

 SO_X = oxides of sulfur

TPH = tons per hour

TPY = tons per year

VOC = volatile organic compounds

yr = year

V. Existing Air Quality

On July 1, 1987, the Environmental Protection Agency (EPA) promulgated new National Ambient Air Quality Standards (NAAQS) for PM₁₀. Due to exceedances of the national standards for PM₁₀, the cities of Kalispell (and the nearby Evergreen area), Columbia Falls, Butte, Whitefish, Libby, Missoula, and Thompson Falls were designated by EPA as nonattainment for PM₁₀. As a result of this designation, EPA required the Department and the City-County Health Departments to submit PM₁₀ State Implementation Plans (SIP). The SIPs consisted of emission control plans that controlled fugitive dust emissions from roads, parking lots, construction, and demolition, since technical studies determined these sources to be the major contributors to PM₁₀ emissions.

MAQP #3207-01 and Addendum 2 are for a portable crushing/screening plant to be located at sites in or within 10 km of certain PM_{10} nonattainment areas during the summer season (April 1 through September 30). Summertime operations (April 1 through September 30) may include areas in or within 10 km of certain PM_{10} nonattainment areas, including, but not limited to Libby, Kalispell, Columbia Falls, Whitefish, Thompson Falls, and Butte. The more stringent operating conditions contained in the addendum will minimize any potential impact on the nonattainment areas and will protect the national ambient air quality standards. Also, this facility is a portable source that would be expected to operate on an intermittent and temporary basis and any effects on air quality would be expected to be minor and short-lived.

VI. Air Quality Impacts

MAQP #3207-01 will cover the operations of this portable crushing/screening plant while operating at any location within Montana, excluding those counties that have a Department approved permitting program and those areas that are tribal lands.

MAQP #3207-01 and Addendum 2 will cover the operations of this portable crushing/screening plant, while operating in or within 10 km of PM_{10} nonattainment areas during the summer months only (April 1 through September 30).

VII. Taking or Damaging Implication Analysis

As required by 2-10-101 through 105, MCA, the Department conducted the following private property taking and damaging assessment:

YES	NO	
X		1. Does the action pertain to land or water management or environmental regulation affecting private real property or water rights?
	X	2. Does the action result in either a permanent or indefinite physical occupation of private property?
	X	3. Does the action deny a fundamental attribute of ownership? (ex.: right to exclude others, disposal of property)
	X	4. Does the action deprive the owner of all economically viable uses of the property?
	X	5. Does the action require a property owner to dedicate a portion of property or to grant an easement? [If no, go to (6)].
		5a. Is there a reasonable, specific connection between the government requirement and legitimate state interests?
		5b. Is the government requirement roughly proportional to the impact of the proposed use of the property?
	X	6. Does the action have a severe impact on the value of the property? (consider economic impact, investment-backed expectations, character of government action)
	X	7. Does the action damage the property by causing some physical disturbance with respect to the property in excess of that sustained by the public generally?
	X	7a. Is the impact of government action direct, peculiar, and significant?
	X	7b. Has government action resulted in the property becoming practically inaccessible, waterlogged or flooded?
	X	7c. Has government action lowered property values by more than 30% and necessitated the physical taking of adjacent property or property across a public way from the property in question?
	X	Takings or damaging implications? (Taking or damaging implications exist if YES is checked in response to question 1 and also to any one or more of the following questions: 2, 3, 4, 6, 7a, 7b, 7c; or if NO is checked in response to questions 5a or 5b; the shaded areas)

Based on this analysis, the Department determined there are no taking or damaging implications associated with this permit action.

VIII. **Environmental Assessment**

The current permit action is considered an administrative action; therefore an environmental assessment is not required for the proposed project.

Addendum Analysis prepared by: Deanne Fischer Date: February 28, 2012